IN THE CLAIMS

1-62. (canceled)

63. (canceled)

64. (canceled)

65. (currently amended) The system of claim 79 ~~63~~, wherein said single wavelength is approximately 761.5 nanometers.

66. (canceled)

67. (currently amended) The system of claim 79 ~~63~~, wherein said signal analyzer determines the existence of said O_2 gas in the container.

68. (currently amended) The system of claim 79 ~~63~~, wherein said signal analyzer determines the concentration of said O_2 gas in said container.

69-78. (canceled)

79. (currently amended) A system for detecting the growth of microorganisms in a sample in a container, comprising:

a plurality of containers; and

an apparatus, the apparatus, comprising:

a module comprising a plurality of openings configured for receiving said containers;

a laser that emits, through at least one of said containers, radiation at a substantially single wavelength at which a gas selected from the group consisting of O_2 gas, NH_3 gas, H_2S gas, CH_4 gas, and CO_2 gas absorbs radiation, said substantially single wavelength at which CO_2 gas absorbs radiation being ~~of~~ approximately 2.004 micrometers ~~at which CO_2 gas absorbs radiation~~;

a detector that detects at least a portion of said radiation that passes through said container; and

a signal analyzer that analyzes said detected radiation ~~of approximately 2.004 micrometers~~, wherein saidthe signal analyzer determines at least one parameter selected from the group

consisting of the pressure of the gas in the container, the existence of ~~CO_2~~the gas in the container, and the concentration of the~~CO_2~~ gas in the container.

80. (currently amended) The system of claim 79, wherein said~~the~~ laser is a monomodal, distributed feedback laser.

81. (currently amended) The system of claim 79, wherein said~~the~~ signal analyzer determines the pressure of the gas in the container.

82. (currently amended) The system of claim 79, wherein the signal analyzer analyzes said detected radiation of approximately 2.004 micrometers and determines the existence of said CO_2 gas in the container.

83. (currently amended) The system of claim 79, wherein said~~the~~ signal analyzer determines the concentration of said CO_2 gas in said~~the~~ container.

84. (previously presented) The system of claim 79, wherein said signal analyzer includes a spectrography device, adapted to spectrographically analyze said detected portion of said radiation.

85. (currently amended) The system of claim 79, wherein said~~the~~ system further comprises a housing, adapted to house said laser and said detector, said housing being movable such that said laser and said detector are capable of being located proximate to each of said containers, sequentially in time.

86. (currently amended) The system of claim 85, wherein said containers are arranged in a plurality of rows and columns, and said~~the~~ housing is adapted to move along said rows and said columns.

87. (previously presented) The system of claim 85, wherein said housing is adapted to extend said laser and said detector toward each said container and to retract said laser and said detector away from each said container.

88. (currently amended) The system of claim 79, wherein saidthe system further comprises a housing having thesaid plurality of openings therein, each said opening adapted to receive one of said containers, and wherein thesaid housing is movable such that each of said containers is capable of being moved proximate to said laser and said detector.

89. (previously presented) The system of claim 88, wherein said housing is substantially circular, wherein said openings are disposed circumferentially about said housing, and wherein said housing rotates to move said containers proximate to said laser and said detector.

90. (canceled)

91. (currently amended) The system of claim 79, wherein saidthe system comprises a plurality of said lasers and a plurality of said detectors.

92. (previously presented) The system of claim 79, wherein said container comprises a sample vial having a neck, and wherein said laser emits said radiation through said neck.

93. (canceled)

94. (canceled)

95. (canceled)

96. (currently amended) The system of claim 9479, wherein said gas is NH_3 and said wavelength is approximately 1.997 micrometers.

97. (currently amended) The system of claim 9479, wherein said gas is H_2S and said wavelength is approximately 1.570 micrometers.

98. (currently amended) The system of claim 9479, wherein said gas is CH_4 and said wavelength is approximately 1.650 micrometers.

99. (currently amended) The system of claim 9479, wherein said gas is SO_2 and said wavelength is approximately 7.28 micrometers.

100-112. (canceled)

113. (new) A system for detecting the growth of microorganisms in a sample in a container, comprising:

an apparatus comprising:

a module comprising a plurality of openings configured for receiving sample containers;

a detector unit comprising a plurality of lasers each of which emit radiation at a substantially single wavelength, that wavelength being one at which a gas selected from the group consisting of O_2, CO_2, NH_3, H_2S and CH_4 absorbs radiation, said substantially single wavelength at which CO_2 absorbs radiation being approximately 2.004 micrometers, and wherein at least a first laser emits radiation at a wavelength that is different from at least one other laser and a plurality of detectors, each of which is associated with a laser wherein each detector detects at least a portion of said radiation emitted from its associated laser, and wherein the detectors are positioned relative to the lasers such that a gas-containing portion of the sample containers can pass between said laser and said detector, and

a signal analyzer that analyzes said detected radiation from said plurality of lasers to determine a parameter from a plurality of said gases, said parameter selected from the group consisting of the pressure of the gas in the container, the concentration of the gas in the container and the presence of the gas in the container; and

sample containers that are substantially optically transparent at said emission wavelength of said plurality of lasers.

114. (new) The system of claim 113, wherein said laser is a monomodal, distributed feedback laser.

115. (new) The system of claim 113, wherein said signal analyzer includes a spectrography device, adapted to

spectrographically analyze said detected portion of said radiation.

116. (new) The system of claim 113, wherein said detector unit further comprises a housing, said plurality of lasers and said plurality of detectors being movably disposed within said housing, said housing being movable such that said lasers and said detectors are capable of being located proximate to each of said containers.

117. (new) The system of claim 116, wherein said containers are arranged in a plurality of rows and columns, and said housing is adapted to move along said rows and said columns.

118. (new) The system of claim 117, wherein said housing is adapted to extend said laser and said detector toward each said container and to retract said laser and said detector away from each said container.

119. (new) The system of claim 113, wherein the system further comprises a system housing having an interior portion with a plurality of openings therein, each said opening adapted to receive one of said containers, and wherein said interior portion of said system housing is movable such that each said container is capable of being moved proximate to said laser and said detector.

120. (new) The system of claim 119, wherein said housing is substantially circular, wherein said openings are disposed circumferentially about said interior portion of said housing, and wherein said interior portion of said housing rotates to move said containers proximate to said laser and said detector.

121. (new) The system of claim 113, wherein said containers comprises a sample vial having a neck, and wherein said lasers emit said radiation through said neck of said containers.

122. (new) The system of claim 113 wherein said detector unit further comprises a bracket upon which said plurality of lasers and said plurality of detectors are mounted bracket, wherein said lasers and detectors are mounted in spaced apart relation on said bracket to allow a portion of the container to pass between said laser and its associated detector.

123. (new) A system for detecting the growth of microorganisms in a sample in a container, comprising:

an apparatus comprising:

a module comprising a plurality of openings configured for receiving sample containers;

a monitoring assembly comprising:

i) a plurality of lasers each of which emit radiation at a substantially single wavelength, that wavelength being one at which a gas selected from the group consisting of O_2, CO_2, NH_3, H_2S and CH_4 absorbs radiation, said wavelength at which CO_2 absorbs radiation being approximately 2.004 micrometers, and wherein at least a first laser emits radiation at a wavelength that is different from at least one other laser,

ii) a plurality of detectors, each of which is associated with a laser wherein each detector is positioned to detect at least a portion of said radiation emitted from said laser associated therewith, and

iii) a mounting bracket for said plurality of lasers and detectors where said bracket comprises at least one first portion, said first portion supporting said plurality of lasers and at least one second portion, said second portion supporting said plurality of detectors, wherein said first and second portions are in spaced apart relation such that a gas-containing portion of said sample containers can pass between each said laser and said detector;

a signal analyzer that analyzes said detected radiation from said plurality of lasers to determine a parameter from a

plurality of said gases, said parameter selected from the group consisting of the pressure of the gas in the container, the concentration of the gas in the container and the presence of the gas in the container; and

sample containers that are substantially optically transparent at said emission wavelength of said plurality of lasers.

124. (new) The system of claim 126, wherein said signal analyzer includes a spectrography device, adapted to spectrographically analyze said detected portion of said radiation.

125. (new) The system of claim 126, wherein said bracket is disposed in a movable housing such that said lasers and said detectors are capable of being located proximate to each of said containers, sequentially in time.

126. (new) The system of claim 128 wherein said housing is movably attached to a support and said containers are arranged in a plurality of rows and columns, wherein said housing is adapted to move along said rows and said columns.

127. (new) The system of claim 129, wherein said housing is adapted to extend said laser and said detector toward each said container and to retract said laser and said detector away from each said container.

128. (new) The system of claim 123, wherein said module further comprises a housing having an interior portion with said plurality of openings therein and wherein the interior portion of said housing is movable such that each said container is capable of being moved proximate to said lasers and said detectors.

129. (new) The system of claim 128, wherein said housing is substantially circular, wherein said openings are disposed circumferentially about said interior portion of said housing, and wherein said interior portion of said housing rotates to

move said containers proximate to said lasers and said detectors.

130. (new) The system of claim 123, wherein said container comprises a sample vial having a neck, and wherein said lasers emit said radiation through said neck of said container.

131. (new) The system of claim 123 wherein said plurality of lasers and said plurality of detectors are mounted on a bracket, wherein said lasers and detectors are mounted in spaced apart relation on said bracket to allow a portion of said container to pass between said laser and said detector.

132. (new) The system of claim 131 wherein said bracket is movable relative to said containers and said openings such that said bracket is capable of moving said lasers and said detectors proximate to said containers.

133. (new) A system for detecting the growth of microorganisms in a sample in a container, comprising:

an apparatus comprising:

a module comprising housing and a movable interior portion having a plurality of openings configured for receiving sample containers;

a monitoring assembly comprising:

i) a plurality of lasers each of which emit radiation at a substantially single wavelength at which a target gas absorbs radiation, wherein at least a first laser emits radiation at a wavelength that is different from at least one other laser,

ii) a plurality of detectors, each of which is associated with a different one of the plurality of lasers wherein each detector detects at least a portion of said radiation emitted from its associated laser, and

iii) a mounting bracket for the plurality of lasers and detectors wherein the bracket comprises at least one first support portion for supporting the plurality of lasers and at

least one second support portion for supporting the plurality of detectors, wherein the plurality of lasers are supported opposite their associated detector and said at least one first portion is in a spaced apart relation with said second support portion such that a gas-containing portion of the sample containers can pass between said laser and its associated detector;

a signal analyzer that analyzes said detected radiation from said plurality of lasers to determine a parameter from a plurality of said target gases, said parameter selected from the group consisting of the pressure of the target gas in the container, the concentration of the target gas in the container and the presence of the target gas in the container;

wherein said movable interior portion is movable such that each said sample container is capable of being moved proximate to said lasers and said detectors and said sample containers are substantially optically transparent at the emission wavelength of the plurality of lasers.

134. (new) The system of claim 133 wherein the target gas is selected from the group consisting of O_2, CO_2, NH_3, H_2S and CH_4.

135. (new) The system of claim 134 wherein said substantially single wavelength at which CO_2 absorbs radiation is 2.004 microns.

136. (new) The system of claim 134 wherein said substantially single wavelength at which O_2 absorbs radiation is 761.5 nanometers.

137. (new) The system of claim 134 wherein said substantially single wavelength at which NH_3 absorbs radiation is 1.997 microns.

138. (new) The system of claim 134 wherein said substantially single wavelength at which H_2S absorbs radiation is 1.570 microns.

139. (new) The system of claim 134 wherein said substantially single wavelength at which CH_4 absorbs radiation is 1.650 microns.

140. (new) The system of claim 134 wherein said substantially single wavelength at which SO_2 absorbs radiation is 7.28 microns.

141. (new) A system for detecting the growth of microorganisms in a sample in a container, comprising:

an apparatus comprising:

a module comprising a plurality of openings configured for receiving sample containers;

a monitoring assembly comprising:

i) a plurality of lasers each of which emit radiation at a substantially single wavelength at which a target gas absorbs radiation, wherein at least a first laser emits radiation at a wavelength that is different from at least one other laser,

ii) a plurality of detectors, each of which is associated with a different one of the plurality of lasers wherein each detector detects at least a portion of said radiation emitted from its associated laser, and

iii) a moveable assembly comprising a rail and a slidable mounting bracket moveably connected to said rail, wherein the bracket comprises at least one first portion supporting said lasers and at least one second portion supporting said detectors, wherein said first portions are opposite said second portions and spaced apart such that a gas-containing portion of the sample containers can pass between said laser and said detector the moveable assembly allowing for relative movement between the bracket and the module;

a signal analyzer that analyzes said detected radiation from said plurality of lasers to determine at least one parameter from a plurality of said gases, said parameter selected from the group consisting of the pressure of the gas in

the container, the concentration of the gas in the container and the presence of the gas in the container; and

sample containers that are substantially optically transparent at the emission wavelength of the plurality of lasers.

142. (new) The system of claim 141 wherein the target gas is selected from the group consisting of O_2, CO_2, NH_3, H_2S and CH_4.

143. (new) The system of claim 141, wherein said bracket is disposed in a housing that is movable such that said lasers and said detectors are capable of being located proximate to each of said containers.

144. (new) The system of claim 143 wherein the housing is movably attached to a support and said containers are arranged in a plurality of rows and columns, wherein said housing is adapted to move along said rows and said columns.

145. (new) The system of claim 129, wherein said housing is adapted to extend said laser and said detector toward each said container and to retract said laser and said detector away from each said container.